REMARKS/ARGUMENTS

Claims 1, 3-4, 6-18, and 20-22 are pending. Claims 2, 5 and 19 were previously canceled. Claims 7-9 and 12-16 are rejected. Claims 10, 11, 17 and 18 are objected to.

Applicants note with appreciation the allowance of Claims 1, 3, 4, 6 and 20-22.

Claims 7 and 12-15 stand rejected under 35 U.S.C. Section 103(a) as being unpatentable over Schneider et al. (U.S. Pat. No. 6,333,094) in view of Henkel (WO 99/28363). Claims 7-9 stand rejected as unpatentable over Fields et al. (U.S. Pat. No. 6,440,546) in view of Henkel (WO 99/28363). Claim 16 stands rejected under 35 U.S.C. Section 103(a) as being unpatentable over Schneider et al. (U.S. Pat. No. 6,333,094) in view of Henkel (WO 99/28363) as applied to Claims 7 and 12-15 above, and further in view of Kokrhanek (U.S. Pat. No. 4,743,509).

Reconsideration and withdrawal of these rejections are respectfully requested in view of the remarks set forth in the previous Responses submitted March 17, 2006, and September 19, 2006, as well as the following supplemental comments which are directed more specifically to certain remarks set forth by the Examiner in the Office Action of November 27, 2006.

Independent Claim 7 and independent Claim 12 (from which the other rejected claims, Claims 11-15, depend) require the use of a particular one-component, moisture-curing hot melt adhesive. In particular, the adhesive must comprise at least one reaction product with reactive NCO groups produced by reaction of

a) at least one di- or polyisocyanate;

b) **at least two diols selected from the group consisting of polyether-polyols and alkylene diols, wherein at least one diol has an average molecular weight above 1,000 and at least one diol has an average molecular weight not greater than 800**;

c) at least one crystalline or partly crystalline polyester-polyol; and

d) at least one low molecular weight polymer obtained by polymerization of one or more olefinically unsaturated monomers.

Applicants have found that the incorporation into such a reaction product of at least

two diols selected from the group consisting of polyether-polyols and alkylene diols, wherein at least one diol has an average molecular weight above 1,000 and at least one diol has an average molecular weight not greater than 800, is critical to achieving improved adhesion of a poly(meth)acrylate film to a substrate. The criticality of using at least two different diols having such molecular weight characteristics is neither taught or suggested by the Henkel reference. While it is true that, as the Examiner notes, the Henkel reference discloses that mixtures of polyether polyols could be used and that such polyether polyols preferably have molecular weights within the range of 400 to 6000, there is nothing in the reference that would motivate a worker of ordinary skill in the art to select the particular combination of diols recited in Applicants' claims. That is, the reference disclosure fails to make obvious to such worker that synthesizing an adhesive containing a reaction product derived from both a diol having an average molecular weight above 1,000 and a diol having an average molecular weight not greater than 800 would have a significant, beneficial impact on the adhesive properties of such an adhesive when used for the particular end-use application recited in Claims 7 and 12-15. The worker of ordinary skill in the art would instead be led by the reference to believe that polyether polyols within the molecular weight range of 400 to 6000 would perform essentially equivalently when incorporated into such a reaction product to be used as an adhesive and thus would have had no reason to expect that significant improvements could be attained by utilizing both a diol having an average molecular weight above 1,000 and a diol having an average molecular weight not greater than 800.

In particular, the Henkel reference teaches that, although mixtures of two to three polyether polyols could be used, preferably only one type of polyether polyol is utilized: "Only one type of polyether polyol is preferably used, although mixtures of 2 to 3 polyether polyols differing in their average molecular weight and/or in the nature of their structural elements may also be used" (page 10, lines 19-21). A worker of ordinary skill in the art would clearly interpret this teaching to mean that although mixtures of different polyether polyols could be used, better results would ordinarily be obtained with only one type of polyether polyol. He or she thus would not have had any reasonable expectation that more favorable results or certain advantages would be attained through the use of mixtures. In other words, he or she would have been

discouraged from combining different polyether polyols, since there was no reason to believe that going in this direction would lead to improvements in the performance of the compositions taught by the Henkel reference.

With respect to this point, it is particularly instructive to compare the results obtained in Examples 2 and 3 (in accordance with the present invention) with the results obtained in Example 5.

The PURMELT QR3530-24 hot melt polyurethane adhesive used in Example 5 is prepared by reacting a crystalline polyester polyol, a polyether polyol having an average molecular weight greater than 1000, a second polyether polyol having an average molecular weight of 1000, and a low molecular weight polymer obtained by polymerization of one or more olefinically unsaturated monomers with di- and/or polyisocyanates. A diol selected from the group consisting of polyether-polyols and alkylene diols having a molecular weight not greater than 800 (a required component of Applicants' invention, as recited in Claims 7 and 12) is **not** utilized. This adhesive thus is very close in composition to the adhesive recited in Applicants' Claims 7 and 12, the principal difference between them being the molecular weight of the second polyether polyol.

However, as explained in the specification and in the Declaration of Dr. Horst Hoffmann submitted previously, the use of a second polyether polyol having a molecular weight of 1000 (just slightly higher than the maximum molecular weight of 800 permitted by Applicants' Claims 7 and 12) resulted in noticeably inferior performance when the adhesive prepared therefrom was used to bond a poly(meth)acrylate film to a substrate (see, in particular, Paragraph 10 of the Declaration). This result was unexpected and could not have reasonably been predicted in advance from the combined disclosures of the cited references.

The Examiner has criticized the aforementioned Declaration as follows:

> In response to applicant's citation of the examples provided in applicant's specification, it is noted that applicant has utilized PURMELT QR3530-24. Applicant has alleged that this polyol has an average molecular weight of 1000, and that a diol of a molecular weight not greater than 800 is not utilized. Applicant has not provided support for this allegation in the specification, or in the Declaration. Hence examiner is unable to determine if example 2 and

3 represent unexpected results.

To correct this alleged deficiency, Applicants are submitting herewith a new, revised Declaration of Dr. Horst Hoffmann. The Declaration has been revised to include new Paragraph 8, which describes in detail the reactants used to prepare the PURMELT QR3530-24 hot melt polyurethane adhesive used in Example 5. Applicants respectfully request the Examiner to consider the new Declaration.

In view of the foregoing, it is respectfully submitted that this application is now in condition for allowance. Accordingly, an early Notice of Allowance is earnestly solicited.

Respectfully submitted,

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